

IN THE CLAIMS

1. (Currently Amended) An image processing apparatus, comprising:

a document reading unit ~~which reads~~ configured to read a document at a constant speed and to generating generate image data ~~constituted by comprising~~ a digital signal;

a storing unit ~~which stores~~ configured to store the image data generated by said document reading unit together with information about ~~the~~ a size of said read document;

an enlargement/reduction specifying unit configured to specify ~~which specifies~~ an enlargement/reduction condition when said read document is to be output;

an enlargement/ reduction factor calculating unit configured to ~~which calculates~~ an enlargement/reduction factor based on the information about the size of said read document stored in said storing unit and the enlargement/reduction condition specified by said enlargement/reduction specifying unit;

an enlargement/reduction unit configured to carry ~~which carries~~ out enlargement/reduction ~~with respect to~~ of the image data stored in said storing unit based on the enlargement/reduction factor calculated by said enlargement/reduction factor calculating unit;

an image processing unit ~~which carries~~ configured to carry out image processing ~~with respect to~~ of the image data subjected to the enlargement/reduction by said enlargement/reduction unit; and

an output unit configured to output ~~which outputs~~ a mirror image of said read document based on the image data subjected to the image processing by said image processing unit.

2. (Currently Amended) The image processing apparatus according to claim 1, wherein said enlargement/reduction unit ~~includes~~ comprises:

a relocation data calculating unit ~~which calculates~~ configured to calculate relation data in a one-dimensional direction for a feeding direction and a scanning direction, respectively; and

an image rotating unit ~~which generates~~ configured to generate image data corresponding to an image obtained by rotating an original image by 90 degrees.

3. (Currently Amended) The image processing apparatus according to claim 1, wherein said enlargement/reduction unit ~~includes~~ comprises:

a first relocation data calculating unit ~~which calculates~~ configured to calculate relocation data in a one-dimensional direction for a feeding direction; and

a second relocation data calculating unit ~~which calculates~~ configured to calculate relocation data in the one-dimensional direction for a scanning direction.

4. (Currently Amended) The image processing apparatus according to claim 1, wherein said enlargement/reduction unit is provided independently of said image processing unit, and relocation data are calculated at ~~the~~ a same time in both a feeding direction and a scanning direction.

5. (Currently Amended) The image processing apparatus according to claim 1, wherein said enlargement/reduction unit ~~includes~~ comprises:

a reference data reading unit ~~which reads~~ configured to read, from said storing unit, image data of a reference pixel for calculating relocation data in a plane area; and

a relocation data calculating unit ~~which calculates~~ configured to calculate relocation data in both a feeding direction and a scanning direction for the image data read from said reference data reading unit.

6. (Currently Amended) An image processing method, comprising:

- a document reading step of reading a document at a constant speed and generating image data comprising ~~constituted by~~ a digital signal;
- a storing step of storing the image data generated at the document reading step together with information about the size of said read document;
- a an enlargement/reduction specifying step of specifying an enlargement/reduction condition when said read document is to be output;
- a an enlargement/reduction factor calculating step of calculating a enlargement/reduction factor based on the information about the document size stored at the storing step and the enlargement/reduction condition specified at the enlargement/reduction specifying step;
- a an enlargement/reduction step of carrying out a enlargement/ reduction processing for the image data stored at the storing step based on the enlargement/reduction factor calculated at the enlargement/reduction factor calculating step;
- an image processing step of carrying out an image processing for the image data subjected to the enlargement/reduction processing at the enlargement/reduction step; and
- an output step of outputting, as a mirror image, the image data subjected to the image processing at the image processing step.

7. (Currently Amended) The image processing method according to claim 6, wherein the enlargement/reduction step ~~includes~~ comprises:

- a first data transferring step of transferring original image data to a unit which calculates relocation data in a one-dimensional direction;

a first relocation data calculating step of calculating relocation data for the original image data transferred at the first data transferring step;

a second data transferring step of transferring the relocation data calculated at the first relocation data calculating step a unit which generates image data corresponding to an image rotated by 90 degrees;

an image rotating step of generating image data corresponding to the image rotated by 90 degrees with respect to an image of the relocation data transferred at the second data transferring step[[,]];

a third data transferring step of transferring the image data obtained at the image rotating step said unit which calculates relocation data in a one-dimensional direction; and

a second relocation data calculating step of calculating relocation data for the image data transferred at the third data transferring step.

8. (Currently Amended) The image processing method according to claim 6, wherein the enlargement/reduction step ~~includes~~ comprises:

a first data transferring step of transferring original image data to a first unit which calculates relocation data in one of a scanning direction and a feeding direction;

a first relocation data calculating step of calculating relocation data for the original image data transferred at the first data transferring step;

a second data transferring step of transferring the relocation data calculated at the first relocation data calculating step to a second unit which calculates relocation data in the other one of the scanning direction and the feeding direction; and

a second relocation data calculating step of calculating relocation data for the relocation data transferred at the second data transferring step.

9. (Original) The image processing method according to claim 6, wherein the enlargement/ reduction step is carried out by a unit which is different from the unit which executes the image processing step and relocation data are calculated at the same time in both a feeding direction and a scanning direction.

10. (Currently Amended) The image processing method according to claim 6, wherein the enlargement/reduction step ~~includes~~ comprises:

a reference data reading step of reading, at the storing step, image data of a reference pixel for calculating relocation data in a plane area;

a data transferring step of transferring the image data read at the reference data reading step to a unit which calculates relocation data in both a feeding direction and a scanning direction; and

a relocation data calculating step of calculating relocation data for the image data transferred at the data transferring step.

11. (Currently Amended) A computer readable medium for storing instructions, which when executed by a computer, causes the computer to perform:

a document reading step of reading a document at a constant speed and generating image data comprising ~~constituted by~~ a digital signal;

a storing step of storing the image data generated at the document reading step together with information about the size of said read document;

[[a]] an enlargement/reduction specifying step of specifying an enlargement/reduction condition when said read document is to be output;

a an enlargement/reduction factor calculating step of calculating a an enlargement/reduction factor based on the information about the document size stored at the

storing step and the enlargement/reduction condition specified at the enlargement/reduction specifying step;

a an enlargement/reduction step of carrying out a enlargement/reduction processing for the image data stored at the storing step based on the enlargement/reduction factor calculated at the enlargement/reduction factor calculating step;

an image processing step of carrying out ~~an~~ image processing for the image data subjected to the enlargement/reduction processing at the enlargement/reduction step; and

an output step of outputting, as a mirror image, the image data subjected to the image processing at the image processing step.